

Hydrologic Forecast for Augusta/Elk Creek

CONDITIONS 05/25/2020

Lewis & Clark County Water Quality Protection District

SUMMARY

Elk Creek is a non-gauged stream, therefore regional USGS gauging stations 0608220 (Sun River below Willow Cr), 06079000 (South Fork Sun River near Augusta MT) and 06073500 (Dearborn River at Craig) are used as surrogates to evaluate the timing of spring runoff and may be used to track rising river stage in the area.

Since peaking on May 21st from a significant rain event that moved through the region last week, flows on area streams have been dropping. With above average temperatures and no significant precipitation forecast over the next week, expect loss of higher elevation snowpack and uniformly dropping stream levels from last week's high.

It is possible that segments of Elk Creek may experience unpredictable response to high-water events due to infrastructure damage and/or channel disruptions from the events of 2018 and 2019.

The following data and information are used to assess hydrologic conditions in the Elk Creek drainage.

1. Surrogate **streamflow**
<https://waterdata.usgs.gov/monitoring-location/06082200>
<https://waterdata.usgs.gov/monitoring-location/06079000>
<https://waterdata.usgs.gov/monitoring-location/06073500>
 2. **Snowpack** snow water equivalent (SWE) at the Wood Creek SNOTEL Station west of Augusta
<https://www.nwrfc.noaa.gov/snow/snowplot.cgi?WODM8>
 3. Short-term Augusta 5-day weather (**precipitation and temperature**) projection from the National Weather Service
<https://forecast.weather.gov/MapClick.php?lat=47.4927&lon=-112.3938#.XpooZUZKjGg>
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1. STREAMFLOW

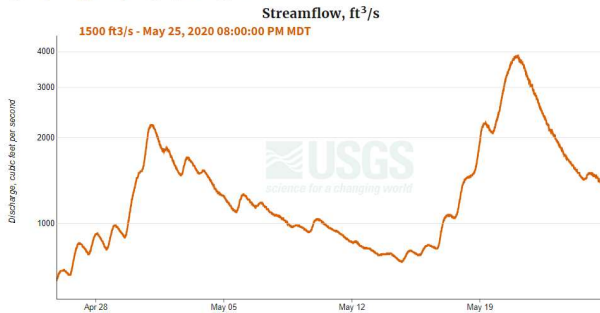
Streamflow at the South Fork Sun River and the Dearborn River over the past 30 days is shown below. Note May 1st peak from warm weather runoff and May 21st peak from recent precipitation.

South Fork Sun River near Augusta MT

IMPORTANT Classic Page

Monitoring location 06079000 is associated with a STREAM in LEWIS AND CLARK COUNTY, MONTANA. Current conditions of DISCHARGE and GAGE HEIGHT are available. Water data back to 1911 are available online.

☐ 7 days ☒ 30 days ☐ 1 year ☐ Custom

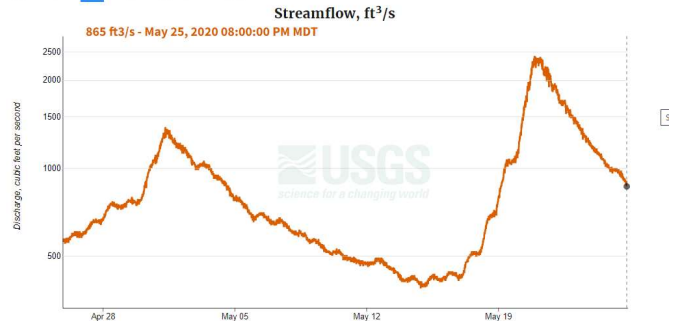


Dearborn River near Craig MT

IMPORTANT Classic Page

Monitoring location 06073500 is associated with a STREAM in LEWIS AND CLARK COUNTY, MONTANA. Current conditions of DISCHARGE, GAGE HEIGHT, and TEMPERATURE are available. Water data back to 1945 are available online.

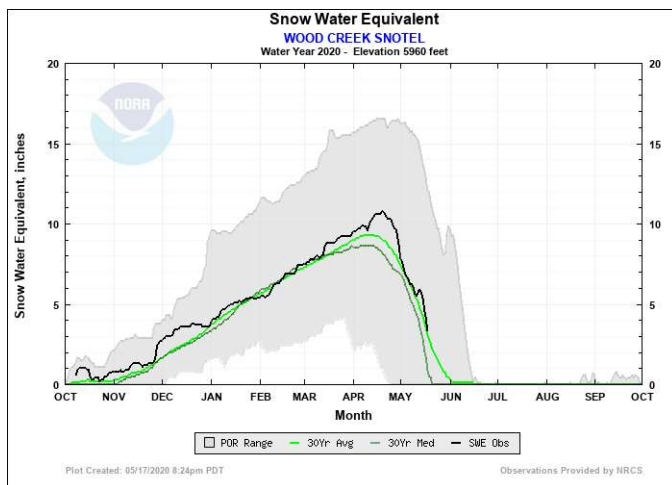
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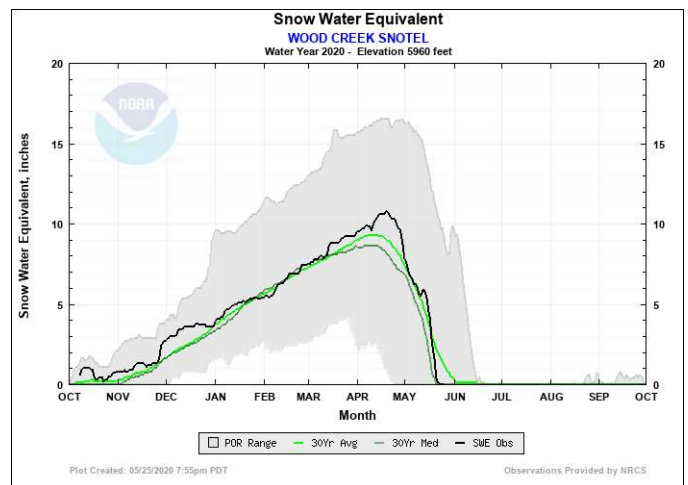
2.

3. SNOWPACK (SWE)

SWE at Wood Creek (5,960') has melted off over the past week. Plots below show loss of Wood Creek snowpack (**black line**).



SWE May 17



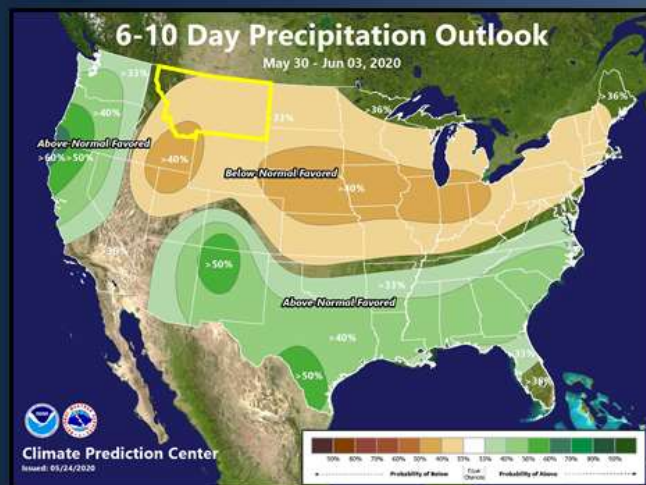
SWE May 25

1. WEATHER

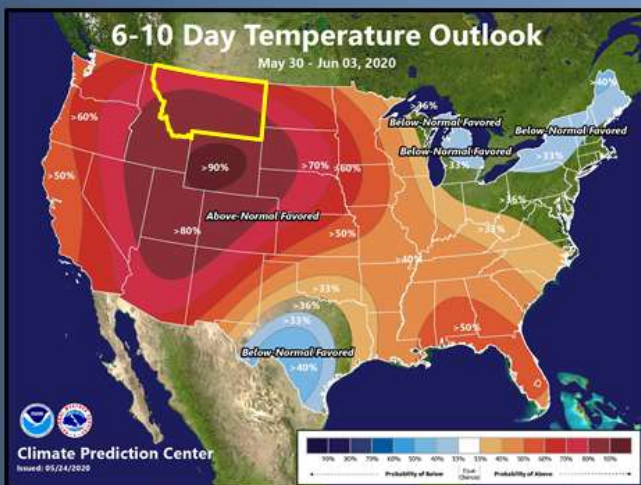
Monday through next Friday... above average temperatures with no significant precipitation is forecast. See 6-10 day outlook from the National Weather Service below.



6-10 Day Outlook



- Slightly greater chances for below normal precipitation
- Any precipitation looks to be limited to isolated to scattered showers and thunderstorms



- Very high confidence in above normal temperatures next weekend into early the following week
- High temperatures may approach record highs for some areas

